

**Notice of Allowability**

Application No.

10/083,508

Examiner

Wesley L. Kim

Applicant(s)

FUKUHARA ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/21/06.
2. ☒ The allowed claim(s) is/are 3-5.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 12/16/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The examiner notes that the applicant has submitted a copy of GB 1586260, which is essentially a published version of Japanese Document 53-084619; therefore the examiner has considered the Japanese Document 53-084619.

### ***Response to Amendment***

1. This Action is in response to Amendment filed 4/21/06.
  - Claims 1-2 and 6-8 have been cancelled.

### ***Allowable Subject Matter***

2. Claims 3-5 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Applicant invention is drawn to a radio LAN master station system which provides long distance communication and suffers from small interference by another system located inside and/or outside of a service area comprising a transceiver and a plurality of directional antennas each directed to a respective section with some angular spacing, through a power distributor which couples said transceiver with said antennas. Polarization plane of any antenna is orthogonal to polarization plane of an adjacent antenna.

Applicant's independent claim 3 recites, *inter alia*, selecting one of the antennas having the largest interference; rotating an angle of polarization plane of the selected antenna to determine an angle of polarization plane called a reference angle so that interference becomes a minimum; and determining an angle of polarization plane of

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other antennas based upon said reference angle so that an angle of polarization plane of any said antenna is orthogonal to an angle of polarization plane of an adjacent antenna. These steps in combination with the remaining steps are neither taught nor suggested by the prior art. Accordingly, Applicants claims are allows for these reasons and for the reasons recited in Non-Final Action (mail date 6/22/05) and Amendments (11/2/05 and 1/25/05).

Applicant's independent claim 4 recites, *inter alia*, selecting one of the antennas having the largest interference; selecting one of a vertical polarization plane and a horizontal polarization plane of said selected antenna, as a reference polarization plane; and determining an angle of polarization plane of other antennas based upon said reference polarization plane so that a polarization plane of any antenna is orthogonal to an adjacent antenna. These steps in combination with the remaining steps are neither taught nor suggested by the prior art. Accordingly, Applicants claims are allows for these reasons and for the reasons recited in Non-Final Action (mail date 6/22/05) and Amendments (11/2/05 and 1/25/05).

Applicants independent claim 5 recites, *inter alia*, selecting one of the antennas having the largest interference; selecting one of a vertical polarization plane and a horizontal polarization plane of said selected antenna, as a reference polarization plane; determing the angle of polarization plane of other antennas based upon said reference polarization plane so that a polarization plane of any antenna is orthogonal to an adjacent antenna; second steps comprising the steps of; selecting one of the antennas having the largest interference greater than a predetermined threshold; and reversing

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the polarization plane of said selected antenna from vertical polarization to horizontal polarization, or from horizontal polarization to vertical polarization; and third steps repeating each of the steps of said second steps until interference of all the antennas becomes less than said predetermined threshold. These steps in combination with the remaining steps are neither taught nor suggested by the prior art. Accordingly, Applicants claims are allows for these reasons and for the reasons recited in Non-Final Action (mail date 6/22/05) and Amendments (11/2/05 and 1/25/05).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L. Kim whose telephone number is 571-272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLK



GEORGE ENG  
SUPERVISORY PATENT EXAMINER